

Attorney Docket No.: C6664(C)  
Serial No.: 10/748,946  
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**BRIEF FOR APPELLANT**

This is a Brief on appellant's Appeal from the Examiner's Final Rejection concerning the above-identified application.

The Commissioner is hereby authorized to charge any additional fees, which may be required to our deposit account No. 12-1155, including all required fees under: 37 C.F.R. §1.16; 37 C.F.R. §1.17; 37 C.F.R. §1.18; 37 C.F.R. §1.136.

**BRIEF FOR APPELLANT**

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## **I. REAL PARTY IN INTEREST**

Unilever Home & Personal Care USA, Division of Conopco, Inc. is the real party in interest.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no other prior or pending appeals or interferences or judicial proceedings known to appellant, the appellant's legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending Appeal.

## **III. STATUS OF CLAIMS**

Claims 11, 14-16, 20, 21, 23, 27 and 28 are on Appeal. Claims 1-10, 12, 13, 17, 18, 22 and 24-26 have been canceled.

## **IV. STATUS OF AMENDMENTS**

No amendments were filed subsequent to the Final Rejection. Accordingly, claims 11, 14-16, 20, 21, 23, 27 and 28 are subject to review.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

Independent claim 11 recites a transparent or translucent bottle having a wall which comprises an outer layer, a middle layer and an inner layer. See the specification at page 12 (line 28) bridging to page 13 (line 9). The outer layer comprises a blend from

25% to 75% by weight of the outer layer of a metallocene polyethylene polymer with density from 0.91 to 0.95 g/cm<sup>3</sup> and of a homopolymer polyethylene with density greater than 0.957 g/cm<sup>3</sup>. See the specification at page 6 (lines 8-12 and 20-22). The middle layer comprises at least 25% by weight of the middle layer of post-consumer recycled resin. See page 13 of the specification at lines 5-6 and 27-29. The outer and inner layers each comprise from 5 to 20% of total thickness of the wall of the bottle. See the specification at page 13, lines 11-16. At least 10% transmittance of light in the visible spectrum is seen through the wall. See original claim 7.

Dependent claim 14 specifies that the blend has from about 0.1 to about 50% by weight of the outer layer of polypropylene. See original claim 4.

Dependent claim 15 specifies that the blend has from about 0.1 to about 25% by weight of the outer layer of polypropylene. See original claim 5.

Dependent claim 16 specifies that the blend has from about 0.1 to about 10% by weight of the outer layer of polypropylene. See original claim 6.

Dependent claim 20 specifies that the bottle has at least 25% transmittance of light in the visible spectrum through a wall of the bottle. See original claim 10.

Dependent claim 21 specifies that the middle layer is further comprised of virgin high density polyethylene. See original claim 21.

Dependent claim 23 specifies that the outer and inner layer each comprise 5-10% of the total thickness of the wall of the bottle. See original claim 23 in combination with page 13 (lines 16-18).

Dependent claim 27 specifies that the middle layer comprises 40-80% of the total thickness of the wall of the bottle. See the specification at page 13, lines 11-13.

Dependent claim 28 specifies that the middle layer comprises 70-80% of the total thickness of the bottle. See the specification at page 13, lines 14-15.

#### **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Are claims 11, 20-21, 23 and 27-28 anticipated under 35 U.S.C. § 102(b) by Heydarpour et al. (U.S. Patent 5,843,540)?

Are claims 14-16 obvious under 35 U.S.C. § 103(a) over Heydarpour et al. (U.S. Patent 5,843,540) in view of D'Alessandro (U.S. Patent 4,068,663)?

#### **VII. APPELLANT'S ARGUMENTS**

**Are claims 11, 20-21, 23 and 27-28 anticipated under 35 U.S.C. § 102(b) by Heydarpour et al. (U.S. Patent 5,843,540)?**

Appellant's independent claim requires at least a three-layer bottle. The middle layer of the three-layer combination must contain at least 25% by weight of the middle layer of post-consumer recycled resin. The Examiner cites Heydarpour et al. as disclosing a container that is recyclable and used by a consumer. Based on this disclosure the Examiner leaps to the conclusion that the reference discloses a container which is formed of recycled post consumer resin, and moreover that a middle layer of that container comprises 100% recycled post consumer resin.

Appellant respectfully submits that the Examiner describes something which goes way beyond any disclosure.

Heydarpour et al. under the Technical BACKGROUND lists advantages for polyethylene pouches "over traditional packages such as glass bottles, paper cartons and **high density polyethylene jugs**" (emphasis added). See column 1, lines 29-32. Among the advantages of polyethylene pouches is that they consume less raw material, require less space in a landfill, are **recyclable**, can be processed easily, require less storage space, require less energy for chilling and can be readily **incinerated**. See column 1, lines 32-37.

Apparently Heydarpour et al. does not believe that high density polyethylene jugs have the same recycling potential as that of pouches. Since the presently claimed **bottle** is much closer to "jugs" than to "pouches", it would appear that the reference is not stating recyclability for plastic bottles. We have here a teaching away.

Further, even with polyethylene pouches, the reference suggests that they are not necessarily recyclable but could well be directed to the incineration alternative.

Still further, the reference utilizes the word "recyclable" rather than "recycled". By "recyclable" is meant that there is potential but not necessarily actual recycling.

Even further, Heydarpour et al. merely observes that polyethylene pouches have an ecological advantage, one of which is that the pouch is recyclable. Lacking is any disclosure that a recycled pouch would be utilized as feedstock for any newly manufactured pouch or bottle. For instance, the present assignee is a major purchaser of polyethylene bottles for packaging laundry detergent (i.e. Wisk® and all® brands). The company has for many years pursued a recycling program for used polyethylene

bottles. Most of these bottles are collected for remolding as construction material and donated to the U.S. National Park Service. See the attached article of December 1997. These efforts have continued till the present. Thus, the presumption that recycled material re-enters into new bottle manufacture has no basis in the reference.

Another feature of claim 11 is the requirement that any post-consumer recycled resin comprise at least 25% by weight of the middle layer and be placed therein. Nothing in the reference teaches that the recycled resin be placed in a middle layer of a bottle wall construction. Neither is there any disclosure that at least 25% of that middle layer be formed of the recycled resin. To anticipate a claim for a patent, a single prior art source must contain all its essential elements. See Merck & Co. v. Teva Pharmaceuticals USA, Inc., 68 USPQ2d 1857 (Fed. Cir. 2003).

Based on all the foregoing considerations, the Examiner's position that Heydarpour et al. specifically teaches a bottle with a layer that is partially formed from post-consumer recycled resin is an untenable one. This reference does not anticipate the post-consumer recycled resin element of the claims.

**Are claims 14-16 obvious under 35 U.S.C. § 103(a) over Heydarpour et al. (U.S. Patent 5,843,540) in view of D'Alessandro (U.S. Patent 4,068,663)?**

Fundamental to the present invention is that the claimed bottle has walls sufficiently clear for a consumer to visibly see liquid contents in the bottle. Often the liquid contents are colored. This adds to the aesthetic appeal. Also color provides a cue to a particular variant of the detergent or other liquid being purchased.

Not only must the bottle be transparent or translucent, but it must be sufficiently strong to withstand rugged handling. Strength has been provided through use of virgin resins. These resins are particularly effective in the outer and, to a lesser extent, in the innermost layers of the bottle wall. An assist to transparency/translucency is provided by use of a metallocene polyethylene virgin polymer in the outer layer. Metallocene polyethylene virgin polymer while providing light transmittance still needs to be strengthened.

Post-consumer recycled resins are known to impart strength. What was surprising to appellant was that recycled resin placed in a middle layer, and in relatively large amount would not substantially interfere with light transmittance. Claim 11 recites that the outer and inner layers are each no thicker than 20% of the total wall thickness. This leaves at least 60% wall thickness for the middle layer. Post-consumer recycled resin is claimed to be at least 25% by weight of the middle layer. This amount of post-consumer recycled resin is indeed a very substantial constituent of the wall.

Intuitively the skilled technician would be hesitant to incorporate any significant amount of recycled resin. This resin is not known to have any appreciable light transmittance. Post-recycled plastics are mixtures of many materials and subject to impurities which could adversely affect light transmission properties. A good stew can easily be ruined in taste by a rotten onion. The same intuitive concern would be with post-consumer recycled resins.

Yet despite the potential (and likely presence) of transmittance adverse components, appellant found that post-consumer recycled resins even in large amount would not interfere with the transparency/translucency of the bottle. Apparently the

metallocene polyethylene polymer in the multi layer arrangement works well as an outer layer insuring viewability despite combination with the much larger middle layer.

In Heydarpour et al there is no disclosure of any post-consumer recycled resin. Absent disclosure of this element, the Examiner has failed to present a *prima facie* case for obviousness.

Even if the Examiner were to have established *prima facie*, the presence of post-consumer recycled resin, there is no disclosure that this resin appear in a middle layer of a bottle. Neither is there any disclosure with respect to at least 25% by weight of recycled resin being present. The only counter point of the Examiner is that mere disclosure of "a recycled bottle" is sufficient to be a disclosure that a middle layer comprises at least 25% by weight post-consumer recycled resin. This view has no basis in the reference.

Heydarpour et al. indicates that polyethylene pouches can be recycled. The common understanding of "recycling" simply means re-use rather than burying as a landfill or incineration. Recycled plastics have a variety of uses. None of these are necessarily or even generally a return to the first type of manufactured article. Nothing in Heydarpour et al. suggests that used pouches be recycled into new pouches. Although there is such a possibility, the skilled technician seeking to produce a transparent or translucent bottle would likely avoid recycled material. Transparency or translucency is not readily achieved with any type of polyethylene. Recycled plastics are more than likely to contain the "wrong" type of polyethylene. One would intuitively avoid feedstock other than virgin material. In the present invention, appellant has gone against the conventional wisdom. Relatively less expensive post-consumer recycled

resin can be utilized, so long as the resin is placed in a middle layer. This concept is unobvious and the results surprising.

Appellant has argued that intuitively a skilled technician would be hesitant to incorporate a significant amount of recycled resin into a bottle expected to be transparent or translucent. The reason for this would be that recycled resin is likely to interfere with light transmittance. The Examiner asserts that appellant has not presented any evidence for this.

"Recycled resin" does not have any specific properties. Almost by definition it is a mixture of plastics from trash collection or re-worked in-plant material. Clarity in a material is not enhanced by components of that material which are unlike one another. Light dispersion occurs from non-uniformity. An analogy is recycled paper. Invariably the articles formed of recycled paper have that "brown" color. Appellant requests that Official Notice be taken that recycling degrades properties relative to virgin materials, and that this includes light properties.

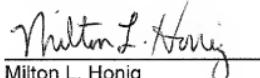
D'Alessandro was cited for disclosing the interchangeability of polyethylene and polypropylene in the making of a bottle. Attention was drawn to column 3, lines 4-9.

The cited passage refers to bottles that could be made of materials such as low and high density polyethylene, polypropylene or polystyrol. Yet there is no teaching or suggestion that mixtures of these materials be utilized. Appellant's claims 14-16 require a blend of polypropylene into the outer layer of metallocene polyethylene polymer. Moreover, a very specific concentration is claimed, i.e. from about 0.1 to about 50% by weight of the outer layer of polypropylene. D'Alessandro does not disclose these

features. For this reason, a combination of Heydarpour et al. in view of D'Alessandro would not render claims 14-16 *prima facie* obvious.

In view of the foregoing comments, appellant requests that the U.S. Board of Patent Appeals and Interferences set aside the rejections.

Respectfully submitted,

  
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Milton L. Honig  
Registration No. 28,617  
Attorney for Appellant(s)

MLH/sm  
201-894-2403

### VIII. CLAIMS APPENDIX

Claim 11. A transparent or translucent bottle having a wall comprising an outer layer, a middle layer and an inner layer, wherein the outer layer comprises a blend from 25% to 75% by weight of the outer layer of a metallocene polyethylene polymer with density from 0.91 to 0.95 g/cm<sup>3</sup> and of a homopolymer polyethylene with density greater than 0.957 g/cm<sup>3</sup>, and the middle layer comprises at least 25% by weight of the middle layer of post-consumer recycled resin, the outer and inner layers each comprising from 5 to 20% of total thickness of the wall of the bottle, and wherein at least 10% transmittance of light in the visible spectrum is seen through the wall.

Claim 14. A bottle according to claim 11, wherein the blend has from about 0.1 to about 50% by weight of the outer layer of polypropylene.

Claim 15. A bottle according to claim 11, wherein the blend has from about 0.1 to about 25% by weight of the outer layer of polypropylene.

Claim 16. A bottle according to claim 11, wherein the blend has from about 0.1 to about 10% by weight of the outer layer of polypropylene.

Claim 20. A bottle according to claim 11, wherein the bottle has at least 25% transmittance of light in the visible spectrum through a wall of the bottle.

Claim 21. A bottle according to claim 11, wherein the middle layer is further comprised of virgin high density polyethylene.

Claim 23. A bottle according to claim 11, wherein the outer and inner layer each comprise 5-10% of the total thickness of the wall of the bottle.

Claim 27. A bottle according to claim 11 wherein the middle layer comprises 40-80% of the total thickness of the wall of the bottle.

Claim 28. A bottle according to claim 11, wherein the middle layer comprises 70-80% of the total thickness of the wall of the bottle.

IX. EVIDENCE APPENDIX

"Lever Joins in Yellowstone National Park's 125<sup>th</sup> Anniversary Celebration" – December 1997 – article attached.

X. RELATED PROCEEDINGS APPENDIX

None.

# Lever Joins In Yellowstone National Park's 125th Anniversary Celebration

On August 17 at the first of two Yellowstone National Park 125th anniversary celebrations, Lever's COO and Executive Vice President John Rice (who, since the October 1 reorganization, is EVP and COO of the Chesbrough-Ponds Business Unit) was honored on behalf of Lever as a modern-day protector of Yellowstone, the world's first national park. Rice was commanded, along with Melinda Sweat, Lever's Senior Vice President, Law, for Lever's ongoing "Recycling at Work" program, representing the best in public/private partnerships.

Vice President Al Gore, U.S. Interior Secretary Bruce Babbitt and National Park Service Director Bob Stanton were on hand for the ceremony, which recognized the seemingly timeless natural beauty and driving eco-system of Yellowstone, as well as paid tribute to our national parks.

On August 25, at a second commemorative event at Old Faithful – the best known geyser in the Park – Wyoming senators and its governor, along with the governor of Idaho, paid tribute to Tollefson, which occupies parts of Idaho, Montana and Wyoming. At the event, Senator Thomas of Wyoming talked with Bill Schrader, Lever's then Director of ECR and Sales. Environmental Task Force, and Lara Wyys, Lever's then Manager of Environmental Affairs, about Lever's recycling program, and expressed the need for other private partners to follow Lever's example.

As part of Lever's "Recycling at Work" program, Lever has donated 100 percent recycled plastic lumber, enabling Yellowstone to replace more than 45,000 square feet of board-

walk immediately around Old Faithful and the adjacent geo-thermal areas. Lever has received two prestigious awards specifically for its "Recycling at Work" projects at Yellowstone.

As part of the 125th anniversary tribute,

John Rice pledged to "work toward completing the replacement of the old boardwalk system around the Old Faithful geyser area with sustainable, recycled plastic lumber."

Four national parks have benefited from donations from Lever's "Recycling at Work" program, in which more than ten million plastic detergent containers have been recycled into 100 percent plastic lumber to create necessary park amenities, such as benches, boardwalks and picnic tables. In four years, Lever's commitment to this program has enabled \$1 million in donations and promotional support. \*



John Rice and other pro-recycling lever employees gathered at Yellowstone National Park, which has a recycled plastic lumber boardwalk system that replaces the 125th anniversary tribute.



John Rice, Executive Vice President of the Chesbrough-Ponds Business Unit, was honored at the 125th anniversary celebration.



John Rice and other pro-recycling lever employees gathered at Yellowstone National Park, which has a recycled plastic lumber boardwalk system that replaces the 125th anniversary tribute.

Photo: Steve L. Smith

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